

### Summary

The invention relates to a method for the detection of microorganism relevant to brewing, as well as to nucleic acids and combinations thereof which can be used in this method. The invention further relates to the use of the nucleic acids according to the invention or combinations thereof for the detection and/or for the identification and/or characterisation of different genera or species of microorganisms relevant to brewing. Hence the problem to be solved by the present invention was to provide a method and means which make possible a rapid test of beer and brewing raw materials for contamination with microorganisms, the test being required to detect the whole range of possible beer-contaminating microorganisms. This problem is solved according to the invention by a method which comprises the following steps: (a) bringing the sample into contact with a combination of at least two first nucleic acid molecules (primers), which hybridise with a region of a microbial nucleic acid conserved in microorganisms relevant to brewing; (b) amplification of the microbial nucleic acid or a portion thereof to produce at least one amplification fragment; (c) bringing the amplification fragments obtained in step (b) into contact with at least one second nucleic acid molecule (probe), which specifically hybridises with at least one amplification fragment that comprises a sequence of the microbial nucleic acid specific for all microorganisms relevant to brewing or for one or several families, genera or species of microorganisms relevant to brewing; and (d) detection of at least one hybrid nucleic acid which consists of an amplification fragment and a second nucleic acid molecule introduced in step (c). Further, nucleic acids are provided, which can be used in the method according to the invention.